

**METHODS AND COMPOSITIONS RELATING TO MODULATION OF  
HEPATOCTYE GROWTH, PLASMA CELL DIFFERENTIATION OR  
T CELL SUBSET ACTIVITY BY MODULATION OF XBP-1 ACTIVITY**

**Abstract**

The invention demonstrates that the transcription factor XBP-1 is a regulator of hepatocyte growth, plasma cell differentiation and T cell subset activity. Methods for identifying modulators of hepatocyte growth, plasma cell differentiation and/or T cell subset activity, using XBP-1-containing indicator compositions or XBP-1-deficient cells, are provided. Methods of modulating hepatocyte growth, plasma cell differentiation and/or T cell subset activity (e.g., Th2 cytokine production) using agents that modulate the activity of XBP-1 are also provided. Methods for diagnosing disorders associated with aberrant hepatocyte growth, plasma cell differentiation and/or T cell subset activity, by assessing a change in XBP-1 expression, are also provided. XBP-1 deficient cells, animals and embryos, as well as kits for the methods of the invention, are also provided by the invention.